REFERENCES

ASKEW, R.R. (1971): Heinemann Educational Books Ltd, London, pp. 165.

BOHART, R.M. & A.S. MENKE, (1963): *Univ. Calif. Pub. Ent.*, 30: 91-182.

EVANS, E. & M.J.W. EBERHARD (1970): The wasps. The University of Michigan press. pp. 219-220.

IWATA, K. (1976): Evolution of Instinct. Amerind Publishing Co. Pvt. Ltd. New Delhi. pp 217-235, 55-57, 242-275.

29. ON AN UNUSUAL *ENDOCLYTA* (LEPIDOPTERA: HEPIALIDAE) FROM KUMAON, IN THE NORTHWEST HIMALAYA, INDIA

Kumaon lies to the west of Nepal, comprising a section of the Himalayan range bordered by the Tibetan plateau to the north and the Gangetic plain to the south. Insect fauna, at least in the lower hills, consists of Indo-Malayan as well as Palaearctic elements. Recently, an influx of Indo-Malayan fauna has been noted, so that at least among Hawkmoths, this group predominates at present (Smetacek 1994).

Hitherto, only two species of Hepialids, i.e. Palpifer sexnotatus Moore and Hepialiscus nepalensis Walker, were known from the Himalaya west of Nepal. Both these species have been recorded recently from Kumaon.

On June 25, 1996, a female of the genus *Endoclyta* Felder was attracted to a mercury vapour lamp at Jones Estate near Bhimtal, in Nainital dist. The moth appeared at around 10 pm which is unusual, since Barlow (1982) observes that the moths of this family are active for a limited period of 15 to 20 minutes at dusk and are seldom encountered late at night.

Unfortunately, there does not seem to be a modern revision of the genus *Endoclyta*, and Barlow points out that his placement of the species is tentative. As a result, the specimen under consideration cannot be placed with certainty.

Barlow (1982) illustrated a male of *Endoclyta* (= *Endoclita*) chalybeatus Moore, with which the specimen under consideration agrees in the lack of any white marks on the forewing and the termination of the dark discal area on the forewing along vein 2.

It differs in (i) the much darker ground colour of the forewing and the fuscous head,

thorax, abdomen and hindwing, which are pale brown in the illustrated male. This may, however, be explained by the fact that the specimen is a female, which is known to be darker (Hampson 1892). (ii) On the forewing, which measures 45 mm, the pale area in the cell is reduced, the pale discal band does not reach the costa and there is no defined pale sub-apical or sub-marginal area. The pale discal band is outwardly sharply defined by an inwardly pale and outwardly dark fascia. The area beyond this is crossed by numerous discontinuous striae. The most prominent of these striae are those bounding the sub-terminal band, which are also inwardly pale and outwardly dark. The band begins above vein 2, proceeding upward in two discontinuous steps to vein 4. From vein 4 to vein 8 the outer fascia is continuous but irregular, while the inner fascia is discontinuous throughout its length. Above vein 9, the band and bordering fasciae lose their prominence among several striae.

Hampson has treated Endoclyta chalybeatus as a synonym of "Phassus signifer Walker" which, according to him, may be distinguished chiefly by the darker discal markings of the forewing terminating along vein 2. P. signifer, however, has white marks in the forewing cell. He mentions an unusual specimen from Burma (Myanmar) in which the ground colour of the forewing is pale brownish yellow, with no white spots in the cell. This unusual specimen is what subsequent workers have treated as E. chalybeatus.

There does not appear to be any Indian member of *Endoclyta* combining the characteristic termination of the dark area along

vein 2 and the lack of white spots on the forewing. On the basis of the above, I have placed the specimen under consideration as *Endoclyta chalybeatus*, although this is a tentative placement.

The range of Endoclyta chalybeatus is Burma (=Myanmar) Thailand and Malaya according to Barlow, and that of "Phassus signifer" is Sylhet (Bangladesh), Burma and Borneo according to Hampson.

In any event, the appearance of a female in good condition belonging to this species or a very closely related one over one thousand kilometres west of its known habitat is worthy of note. Barlow gives Erythrina as one of the larval host plants of E. chalybeatus. Two species of Erythrina occur in Jones Estate, i.e. E. suberosa Roxb. or the Coral Tree and E. arborescens Roxb. Therefore, if the specimen is chalybeatus after all, its appearance is perhaps not surprising, given the increasing influx of Indo-Malayan moth species in the Kumaon Himalaya.

August 28, 1997

PETER SMETACEK Jones Estate, Bhimtal Nainital, U.P. 263 136

REFERENCES

Barlow, H.S. (1982): An Introduction to the Moths of South East Asia, E.W. Classey Ltd., Faringdon.

HAMPSON, G.F. (1892): The Fauna of British India including Ceylon and Burma, Moths Vol. 1, Dr. W. Junk, The Hague. Reprinted Today & Tomorrow's

Publishers, Delhi.

SMETACEK, P. (1994): The Hawkmoths (Lepidoptera: Sphingidae) of Kumaon, N. India: A probable case of faunal drift. *Rec. Zool. Sur. India, Occ. Paper 156*, pp 55.

30. SIGHTING OF THE COMMON PALMFLY (NYMPHALIDAE: LEPIDOPTERA) IN MUMBAI

On 23 October, 1996 at around 0915 hrs, a common palmfly, Elymnias hypermnestra caudata was spotted flying low in the garden of Colaba woods, South Mumbai. The specimen was bright and its striking colour pattern with brownish-black forewings, with a prominent, single white band and rust orange hindwings was unmistakable. Recently, this garden acquired additional palm saplings of Areca sp. from Mangalore and it is quite possible that one of them carried the eggs and pupa of this species. It may be noted that Mumbai had inclement weather due to the cyclonic conditions prevailing on the west coast of India during that period.

Mr. Naresh Chaturvedi, Curator of the BNHS, confirmed the species and recommended that this sighting be recorded, as the common palmfly is rarely seen in Mumbai and the surrounding areas. The last sighting was in Kihim across on the mainland in September 1972 (Salman Abdulali *JBNHS* 70: 228).

Subsequently, four more specimens were sighted in Alibag on 7th and 8th June 1997.

July 7, 1997

KIRAN SRIVASTAVA 131 Mehr-Dad, 13th Floor, Cuffe Parade, Mumbai 400 005.

31. THE PLAIN PUFFIN APPIAS INDRA SWINHOE: BEHAVIOUR, LIFE-HISTORY AND DISTRIBUTION

(With one plate)

The Plain Puffin (Appias indra Swinhoe, Pieridae: Lepidoptera) is a medium-sized black

and white butterfly. Its distribution covers Sri Lanka, Western Ghats, Nepal, NE. India and